

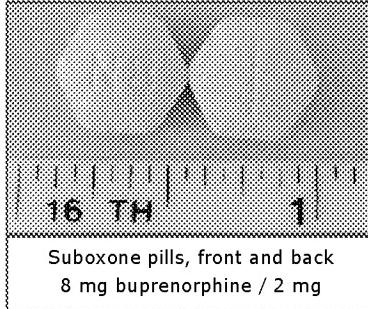
**August XX, 2008
Version 1, No. 1****Submission Safety Tip**

- * Please alert the Evidence Officers to all biohazardous submissions.
- * Samples that have been retrieved from locations such as the toilet, mouth, or other body cavity are considered biohazardous.

Buprenorphine Diversion & Abuse on the Rise in MA

In fiscal year 2005, buprenorphine entered the top ten most analyzed items by the MDPH Forensic Drug Laboratories. Buprenorphine is a synthetic opiate approved by the Food and Drug Administration (FDA) in 2002 for use in treating opiate addiction.

Buprenorphine is sold in the U.S. under the trade names Subutex and Suboxone. Subutex contains only buprenorphine, but Suboxone contains a combination of buprenorphine and naloxone in a 4:1 ratio. The inclusion of naloxone is to discourage users from dissolving and injecting the tablets. If injected, naloxone will cause a person dependent on opiates to go into withdrawal.



Naloxone is also marketed under the brand name Narcan, and it neutralizes respiratory and central nervous system depression associated with an overdose. Suboxone has been taken by opiate-dependent users to counteract the effects of a heroin or methadone overdose, and may also be used to decrease withdrawal symptoms through self-medication.

When buprenorphine is properly prescribed to and used by patients, it has proven to be a successful tool in treating opiate addiction; however, it is an opiate and can be dangerous when it is not taken as recommended or taken in conjunction with other depressants such as alcohol or benzodiazepines.

The MDPH Drug Laboratories analyzed and identified 417 items as buprenorphine in fiscal year 2007. As you can see on graph 1.0 (page 2), bupre-

(cont'd on p. 2)

Did you know?

Marijuana accounts for 40% of all items analyzed by the MDPH Drug Laboratories.

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Marijuana: The Bulk of Our Submissions

Marijuana submissions make up a greater percentage of our samples in quantity and volume than any other substance. Bulk submissions of marijuana have increased over the past several years.

In order help the laboratory manage these cases, please notify the MDPH Evidence Office ahead of time when submitting bulk marijuana samples. This will help with the logistics associated with these

cases and allow us to prepare a suitable storage space ahead of time.

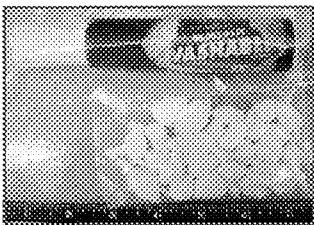
Call 617-983-6622 prior to submitting bulk samples



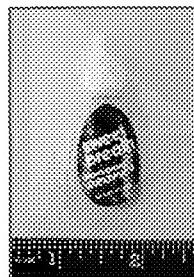
This package of marijuana weighs approx. 15 to 20 lbs. 3 or 4 of these bricks would total about 50 lbs.



A soda can with a false bottom, concealing cocaine.



Over 14g of cocaine was found inside this marker.

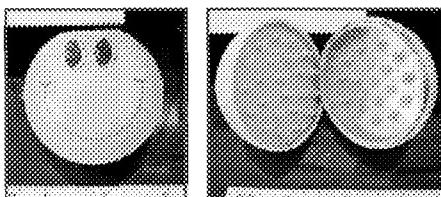


This container held LSD, not breath freshener.

Camouflaging Illicit Substances & Paraphernalia

Common objects may be used to conceal illicit substances, and the Drug Laboratories have received samples concealed in many ingenious ways.

"Hide containers" are usually innocuous items that have been modified to hold drugs and/or other paraphernalia. These small, portable items allow the user or dealer to transport items discreetly with ease.

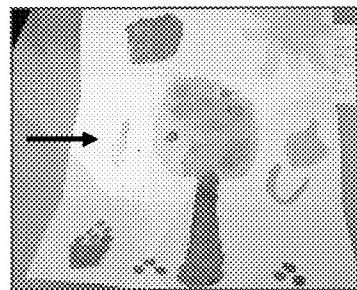


The object above is a marijuana grinder: note the spikes inside.

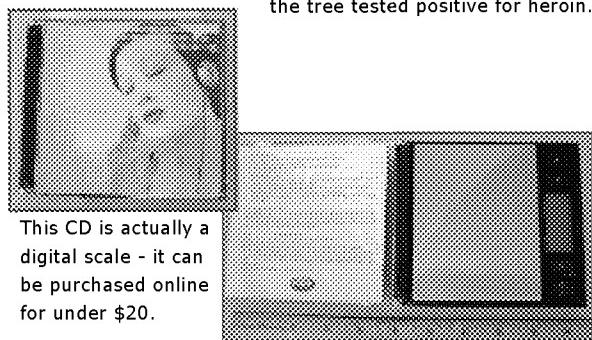
Containers can be modified by the user or commercially manufactured. Markers are commonly used as a way to hide pipes or drugs. Cosmetic cases, including lipstick containers, are another popular option.

The Drug Laboratories also receive items submitted by corrections officers. Smuggling drugs into prison is very difficult, but some creative attempts have been made. On more than once occa-

sion, the lab has received heroin disguised as part of a child's artwork.



The brown smudge to the left of the tree tested positive for heroin.

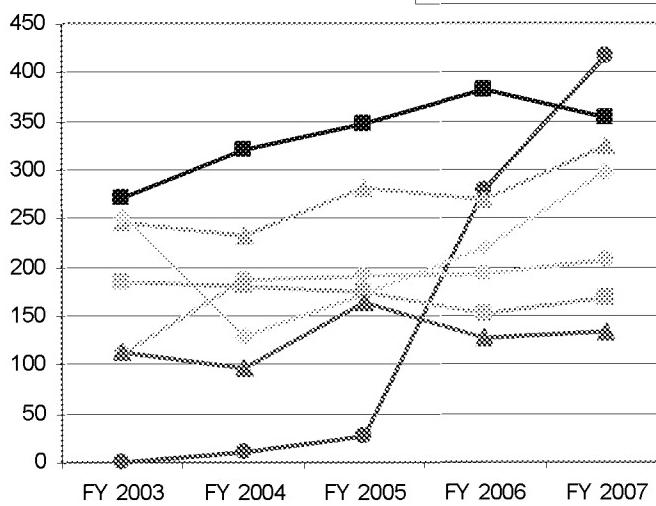


This CD is actually a digital scale - it can be purchased online for under \$20.

Buprenorphine Diversion & Abuse on the Rise in MA

These substances were in the MDPH Ten Most Frequently Identified Drugs between FY2003 and FY2007.

- buprenorphine
- alprazolam
- hydrocodone-c
- mdma
- methadone
- diazepam
- amphetamine



norphine is now the sixth most identified drug by the MDPH FDL. This is a huge increase in a relatively short period of time, and the U.S. Department of Justice has identified the Northeast as a region of particular concern regarding diversion and abuse of buprenorphine. This corresponds to the fact that the Northeast contains a high concentration of heroin users relative to other regions of the United States.

A report published by the Substance Abuse and Mental Health Services Administration (SAMHSA) in 2006 lists Massachusetts as the state with the greatest total number of Subutex and Suboxone dosage units distributed,

(cont'd from p. 1)

and as the state with the highest levels of buprenorphine items analyzed by forensic labs. These statistics coupled with the information we have compiled point to an increasing trend of buprenorphine diversion and abuse in Massachusetts, and the MDPH Forensic Drug Laboratories will continue to monitor this issue.

The Most Frequently Analyzed Items: FY 2003 - FY 2007

The ten most frequently identified drugs comprise approximately 80% of the total items analyzed by the MDPH Forensic Drug Laboratories, with an average of over 32,000 items per fiscal year. For the past five years, the top five most ID'd drugs have been, in descending order, marijuana, cocaine, heroin, oxycodone, and clonazepam.

Marijuana, cocaine, and heroin remain extremely popular in Massachusetts, and are 75% of the total items analyzed. As you can see in the chart 3.2, cocaine and heroin trafficking cases, (defined according to MA General Laws as 14 grams or greater for those substances), have increased over the past 5 fiscal years. Analytical Chemists are frequently subpoenaed to testify in trafficking cases, particularly those where the amount is close to 14g, as sentencing guidelines for these cases in both state and federal court is tied to the net quantity.

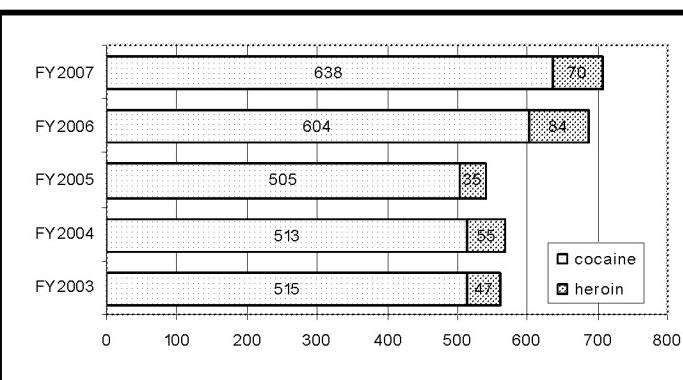
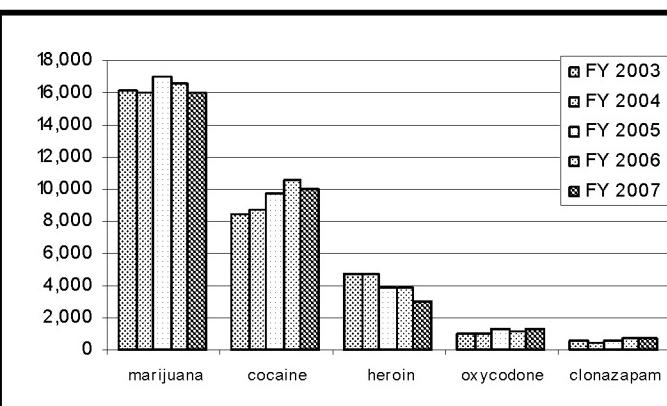
Marijuana submissions and analy-

ses have remained consistent over the past five fiscal years, averaging over 16,000 items. Bulk marijuana cases have also increased; for more information please see the story on page 1.

The total number of items analyzed as cocaine is about 25% of the total items submitted to MDPH, and from FY03 to FY07 this number has increased by 15%. Cocaine trafficking items increased by 19%.

Although the total number of items identified as heroin has decreased by 36% over the past five fiscal years, heroin trafficking items have increased by a third.

Oxycodone identifications have risen 27% between FY03 - FY07. Although oxycodone represents a smaller percentage of the total submissions when compared to marijuana, heroin, or cocaine, the testing algorithm (procedure) for oxycodone is more complicated and involved than the testing algorithm for the three most fre-

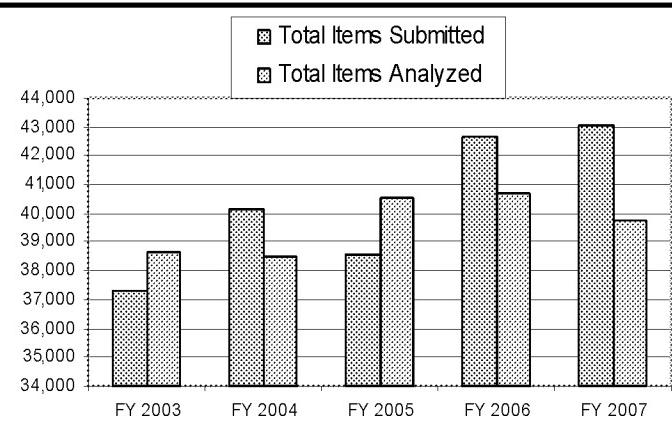


quently analyzed items.

Identification of clonazepam, which is sold in the U.S. under the name Klonopin, has risen by 17% over the past five fiscal years.

Overall sample submissions for the past five fiscal years has increased, and based on this data the MDPH Forensic Drug Laboratories expect to see increasing submission totals.

MDPH Forensic Drug Laboratory Output Remains Strong



The MDPH Forensic Drug Laboratories in Boston and Amherst employ 15.5 full time Analytical Chemists and two Laboratory Supervisors. The MDPH Forensic Drug Laboratories provide services for the city of Boston, towns and cities east and west of Worcester County, and also test federal drug cases. The output per chemist has averaged over 2,700 items per fiscal year for the past five fiscal

years! The variety of submissions received by the laboratory is a challenge, and the analysts must be prepared to test hundreds of unique sample types according to prescribed methods. In addition to the testing duties performed by each chemist, a significant amount of time is spent performing quality assurance and quality control work to insure results produced are accurate.



**Massachusetts
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Laboratory Supervisor: Charles Salemi

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Laboratory Supervisor: Allan Stevenson

The information contained in this newsletter is collated from evidence submitted to the MDPH Forensic Drug Laboratories. Specific case information is omitted, however, any questions, comments, or data can be directed to Elisabeth O'Brien.

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The Massachusetts Department of Public Health analyzes substances suspected to be illicit drugs, for local, state and federal law enforcement, in accordance with Chapter 111, Section 12, of the Massachusetts General Laws.

Qualitative identification of narcotics, common street drugs, and pharmaceuticals is conducted by the Division of Analytical Chemistry, Forensic Drug Laboratories in both the Jamaica Plain (Boston) and Amherst facilities.

The staff analyzes unknown specimens by a variety of visual, microscopic, wet chemical, chromatographic and spectroscopic techniques.

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